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14 November 1969

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MEMORANDUM FOR: Deputy Director, NPIC

THROUGH: Chief, Technical Services & Support Group, NPIC
Chief, Research & Engineering Division, TSSG/NPIC
Chief, Reconnaissance Systems Branch, RED/TSSG/NPIC

SUBJECT: Supplement to COMIREX Staff Study: Planning Factors for Film Distribution 25X1

1. The above document is a sample of the probable distribution of film from one mission. The document was briefed to COMIREX on 13 November 1969 by and, although it was stated that this was a sample, some people are already using this as a milestone document. 25X1 25X1

2. ideas on distribution and savings are relatively sound if looking only at the photo interpretation requirement; however, he has not studied the entire problem of equipment, computer interfaces, mensuration, analysis, and other allied subjects. 25X1

3. In the following paragraphs, I have pointed out the areas of immediate concern if NPIC does not get an entire copy of each mission in the operation/frame order in which the cameras operated. The operation/frame order continues through the titling process, the generation of the frame ephemeris information, analysis and other long-term commitments to the intelligence community. I point these out to you in the hope that no firm commitment be made to accept this document as the only requirement document for materials. There may be issues involving full mission reproduction that I have not addressed but the ones that I have mentioned are immediate and far-reaching problems that must be solved. 25X1

4. The NPIC has been delegated the back-up ephemeris requirement by SAMSO at a cost savings of 1.3 million dollars. The back-up ephemeris production can only be generated after the mission by utilizing all of the film. (Note: The cost savings was SAMSO money saved on the software contract with 25X1

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5. Several pieces of equipment being built for exploitation purposes or for automatic reading capabilities require that the film be packaged in the same manner that the frame ephemeris is made. The frame ephemeris is made from the telemetry and a command list to provide all necessary data for exploitation of any piece of film. The titling on the film will be generated by the frame ephemeris and, since any automatic equipment used must be able to automatically update the data being generated, then these equipments must be run from the frame ephemeris information. A change in this concept would be extremely costly to NPIC and would delay delivery of equipments far beyond the necessary delivery dates.

6. Post Flight Analysis. The NPIC presently supports all operational components with subjective and objective analyses of mission accomplishments and point out the times when the mission objectives were not met, etc. In the past, this has been the driving force in improving older systems and bringing about engineering changes that have bettered the final product. In order to accomplish this, it is necessary that the NPIC have a complete copy of the film available for the short and long term studies. Some mission data is repeating; such as, light leaks, platen scratches, etc., and these must be measured on continuous film in order to determine the cause and correct the situation for the next mission. Likewise, some data is not repeating and occurs on single situations or frames but may well be the forerunner to greater problems in the future and, therefore, have to be found and brought to the attention of the proper operational component. Again, this can only be met with a complete copy of the film.

7. The mensuration parameters file will contain data for the entire mission for ready access by PI's or other computers. This data requires verification and updating after the mission has been received, and therefore we need a complete copy of the film for this activity. This could probably be accomplished from a broken copy but would be much more continuous and easier if derived from the complete, unbroken copy.

8. Chip printers are presently being built (by Westover) that require a complete mission in operation/frame order to generate the proper data for chip printing automatically. This will use the frame ephemeris information as a driving force. It is expected that NPIC will require at least one chip printer to satisfy the PI's and new target categories and, therefore, it is necessary that the NPIC have a complete roll of each bucket or mission.

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9. NPIC targets and new targets are not geographically oriented like the COMIREX targets and will require that the NPIC receive a complete copy of the film in order to maintain the in-house capability to respond to changing crisis situations.

10. Many projects within NPIC are not geographically oriented like the photo interpreter readout teams and, in each of these cases, it is much easier to use data that is continuous and complete and not broken into geographic areas.

11. I have not addressed the number of copies needed for these tasks. If there is no overlap of priority or time constraint, then one copy may be enough. I believe that 2 or 3 complete copies, in addition to the selective printing, is more realistic.

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